TOWN OF JAFFREY, N.H.

TOWN OFFICE BUILDING

TOWN MANAGER'S OFFICE

10 GOODNOW STREET
JAFFREY, NEW HAMPSHIRE 03452
(603) 532-7880
townmanager@town.jaffrey.nh.us

June 6, 2003

Chairman
Waste Management Council
New Hampshire Department of Environmental Services
6 Hazen Drive
P. O. Box 95
Concord, NH 03302-0095

Re: Jaffrey — Town Landfill
Groundwater Management Permit Renewal (DES No. 198402073)

Dear Sir:

Pursuant to the State of New Hampshire's *Revised Statutes Annotated (RSA) 21-0:14 and 21-0:9-V* and in accordance with *RSA 541-A* and New Hampshire Administrative Rules (Env-WMC200), the Town of Jaffrey hereby petitions the Council for Time Extension of Appeal of the above referenced permit.

The Town has scheduled a meeting with the appropriate Division officials to be held June 10, 2003, in the Department of Environmental Services' offices in Concord. During this meeting, we intend to discuss and, hopefully, resolve our concerns regarding this permit renewal.

We look forward to working with the Council and the Division's representatives to resolve our concerns.

Sincerely,

Jonathan B. Blastaf
Town Manager

JBS:rdm

c: Board of Selectmen
Randall Heglin, Public Works Director
James Donison, Town Engineer
W. James Griswold, Haley & Aldrich

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
WASTE MANAGEMENT DIVISION

IN RE: Groundwater Management Permit Renewal (DES #198402073) for the Town of Jaffrey

PETITION FOR TIME EXTENSION OF APPEAL OF PERMIT

Now comes the Town of Jaffrey which hereby requests the Department of Environmental Services to grant a fifteen (15) day extension to the Town of Jaffrey in order to file its appeal of the conditions and terms of the Groundwater Management Permit (DES #198402073), and in support of this Petition states the following:

1. This petition is filed under NH DES Rule Env.WMC 203.09.

2. The referenced permit was issued on May 7, 2003 and received by the Town on May 13, 2003. A meeting with Department of Environmental Services staff is scheduled for Tuesday June 10, 2003 to discuss conditions of the permit.

3. The Town questions the appropriateness of the permit conditions as outlined below:

   a. Inclusion of the town's clay-lined wastewater treatment lagoons into the Groundwater Management Zone and the requirement of issuance of a Groundwater Discharge Permit. State regulations governing GMZ permits are contained in Env 1403. However, the treatment of lagoons falls under Env 1504. Further, the regulations require a Groundwater Discharge Permit for unlined wastewater, septage or sludge lagoons (Env-Ws 1504.01 (a) (1) (emphasis added). As noted in the recently issued GMP, the Jaffrey lagoons are clay lined and, therefore, should be exempt. Finally, even with a Groundwater

Discharge Permit, there is no justification for extending the GMZ of the landfill to include the lagoons.

b. Deadline set by Permit to establish and submit comprehensive Scope of Work (Special Condition for this Permit (13)) is Sunday, June 15, 2003. The Town requests until Tuesday, July 15, 2003 to complete this Work and submittal. The scope of work requested by NHDES in the GMP would be detailed, extensive and expensive. Furthermore, it is the Town's view that the request is not reasonable given the hydrogeologic and geochemical facts. The extension will provide an opportunity for Town and NHDES staff to discuss and possibly resolve the permit terms and conditions in question. Additionally, the extension is requested in order to allow the Town to file a petition of appeal if appropriate.

c. Inclusion of offsite locations and testing of Residential Drinking Water Wells for perchlorate. Perchlorate is not a common constituent of landfill leachate and, to our knowledge, has not been required for testing at other, similar municipal landfills in the state. Furthermore, no Maximum Contaminant Level (MCL) or Ambient Groundwater Quality Standard (AGQS) exists for perchlorate. There is no evidence of a source of perchlorate at the Jaffrey Landfill. The Town argues that this requirement be dropped from the terms of the GMP.

d. Inclusion of offsite locations and testing of Residential Drinking Water Wells for manganese. Manganese is a common mineral constituent

of virtually all New Hampshire groundwater. Offsite locations and residential wells will certainly find manganese, perhaps above standards. However, no residential wells are situated downgradient of the landfill and attributing manganese levels to the landfill in offsite or residential wells is a virtual impossibility.

e. Requirement for an investigation of offsite locations for 1,1-dichloroethene, trichloroethene, and vinyl chloride. Only the Coll Well ((Tax Lot #254-25) has seen occurrences of these constituents with the most recent sampling showing levels below AGQS for all compounds. There is no evidence that the landfill is the source of these constituents as no typical landfill leachate parameters have ever been detected in this well, and the well appears to be either up or cross gradient from the general groundwater flow direction (north, to the Contoocook River). The well is not being used for domestic supply and, therefore, has no potential receptor. There is no risk of exposure. Typically, two sampling events less than AGQS are sufficient for exclusion from further monitoring. However, we agree that monitoring of the well should continue, but the well and the associated property should remain outside the GMZ. Investigation of a bedrock aquifer due to the presence of a single well that shows contamination below AGQS places a potentially onerous financial burden on the Town with no real reason for doing so.

4. This extension will provide ample time and opportunity for the Town of Jaffrey and NH DES staff to discuss and resolve permit terms and conditions in question and file petition of appeal if appropriate.

WHEREFORE, the Town of Jaffrey respectfully requests the New Hampshire Department of Environmental Services:

a. Grant this request for extension of time (additional fifteen days) to file formal appeal of permit in the interest of resolving points of concern.

b. Take any other necessary action related hereto.

Respectfully submitted,
TOWN OF JAFFREY
By its Attorney

Jonathan Sistare
20 Goodnow Street
Jaffrey, NH 03452

Dated: 6/6/03

State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES
6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
(603) 271-3644 FAX (603) 271-2181

May 7, 2003

Mr. Randall W. Heglin, Director
Department of Public Works
Town of Jaffrey
23 Knight Street
Jaffrey, NH 03452

SUBJECT: JAFFREY – Town Landfill (Old Sharon Road), Groundwater Management Permit Renewal (DES #198402073)

Dear Mr. Heglin:

Please find enclosed Groundwater Management Permit Number GWP-198402073-J-003, approved by the Department of Environmental Services (Department). This permit is issued for a period of 5 years to monitor groundwater quality at the subject site and is a renewal of the permit, which expired on February 13, 2001.

All annual monitoring summaries and all required sampling results must be submitted to the Groundwater Management Permits Coordinator at the address above. All correspondence shall contain a cover letter that clearly shows the Department identification number for the site (DES #198402073). **Please note that upon issuance of this permit, it is only necessary to submit monitoring results to the "Groundwater Management Permits Coordinator" and not to my attention.**

On January 10, 2003 the Department received Groundwater Monitoring Reports submitted by the Town and prepared by Haley and Aldrich, Inc. (H&A) dated April 8, 2002 and two reports dated October 4, 2002. The subjects of the October 4, 2002 reports were:

- Jaffrey Landfill Groundwater Management Permit Sampling Data Report (July 2002 Report), and
- Coll's Farm Rental Property Well (Coll's Rental Property Report).

The Department has reviewed these reports and has the following comments.

1. The July 2002 Report provides Groundwater Management Permit sampling data for the sampling round conducted on July 1, 2002. At that time, the Coll's Farm Rental Property (Tax Map 254/Lot 25) was not included in the permit monitoring because it could not be accessed. Data from the July 1 sampling event indicated that violations of the Ambient Groundwater Quality Standards (AGQS) were occurring for several aliquots, at several monitoring points. The AGQS for trichloroethene of 5 µg/L was violated at MW-1S at 13 µg/L and at MW-EI at 8 µg/L. The AGQS for vinyl chloride of 2 µg/L was violated at MW-1S and MW-EI at 4 µg/L and at MW-H at 3 µg/L. The health based drinking water standard for manganese of 840 µg/L was violated at MW-1S and MW-EI at 1300 µg/L and MW-H at 890 µg/L.

2. The Coll's Rental Property Report indicates that a diffusion bag sampler was installed in the well on July 11, 2002 to collect volatile organic compound (VOC) samples for analysis. This sampling method analyzed water samples obtained from bags deployed at shallow (60 ft.), intermediate (170 ft.), and deep (275 ft.) depth

intervals. The stated purpose of the sampling was "*to identify potential zones of contamination in the bedrock supply well.*"

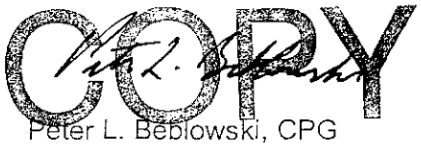
The results indicated that there was low-level VOC contamination at all 3 depths, however, no AGQS violations were recorded at this time. The report also recognizes that the results were subject to vertical flow in the well. Historic monitoring results utilizing more standard sampling techniques indicate frequent AGQS violations of 1,1-dichloroethene and detects of several other chlorinated compounds and methyl tert butyl ether (MtBE). At this time, the Department **does not** consider passive diffusion bag sampling to be an acceptable sampling methodology at this site due to the range of compounds anticipated and the character of the well.

Additionally, upon review of our files, it was found that the landfill is up gradient of the wastewater treatment facility (WWTF). Records indicate that the lagoons are clay lined and, therefore, in accordance with Env-Ws 1500, are required to obtain a Groundwater Discharge Permit. The existing management permit will need to be revised at a future date to include the lagoons and associated discharge/groundwater management zone.

The Department, therefore, in anticipation of this expansion of the GMZ, and inclusion of the lagoon monitoring requests that the Town with its environmental consultant prepare a scope of work (SOW) to both investigate the offsite occurrence of 1,1-dichloroethene, trichloroethene, vinyl chloride and manganese and to address monitoring of the lagoons. The SOW shall be submitted to the Department on or before June 15, 2003.

Should you have any questions, please contact me at (603) 271-2999.

Sincerely,



Peter L. Beblowski, CPG
Waste Management Division

PLB/amr
Gwlib on 'Des1'/permits/manage/#198402073pmt.doc

Enclosure: Groundwater Management Permit
Petroleum & Hazardous Waste Remediation Full List of Analytes

cc: Richard Reed, SWMB Administrator (text only)
Sharon Ducharme, WWEB, Compliance-Supervisor (text only, via email)
Mitch Locker, WSEB (text only, via email)
Karlee Kenison, HWRB-GR&P, Supervisor (text only, via email)
Catherine Wright, SWMB (text only, via email)
Nathaniel Keith, Haley & Aldrich
HWRB File #198402073

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

The

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

hereby issues

GROUNDWATER MANAGEMENT PERMIT NO. GWP- 198402073-J-003

to the permittee

TOWN OF JAFFREY

to monitor groundwater quality at the

JAFFREY MUNICIPAL LANDFILL
(Old Sharon Road)

in JAFFREY, N.H.

via the groundwater monitoring system comprised of

9 monitoring wells, 1 surface water station, and 3 water supply wells

as depicted on the Site Plan entitled

Figure 2 - Site Plan and March 2002 Groundwater Elevations

dated April 2002, prepared by Haley & Aldrich

TO: DIRECTOR OF PUBLIC WORKS
TOWN OF JAFFREY
23 KNIGHT STREET
JAFFREY, NEW HAMPSHIRE 03452

Date of Issuance: May 7, 2003
Date of Expiration: May 6, 2008

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (Department), hereby grants this permit to monitor groundwater for five years at the above described facility subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by the Department (N.H. Admin. Rules Env-Wm 1403) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the referenced site plan.

2. The permittee shall not cause groundwater degradation which results in a violation of surface water quality standards (N.H. Admin. Rules Env-Ws 1700) in any surface water body.

3. The permittee shall allow any authorized staff of the Department, or its agent, to enter the property covered by this permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this permit.

4. The permittee shall apply for the renewal of this permit 90 days prior to its expiration date.

5. This permit is transferable only upon written request to, and approval of, the Department. Compliance with the existing Permit shall be established prior to ownership transfer. Transfer requests shall include the name and address of the person to whom the permit transfer is requested, signature of the current and future permittee, and a summary of all monitoring results to date.

6. The Department reserves the right, under N.H. Admin. Rules Env-Wm 1403, to require additional hydrogeologic studies and/or remedial measures if the Department receives information indicating the need for such work.

7. The permittee shall maintain a water quality monitoring program and submit monitoring results to the Department's Groundwater Management Permits Coordinator no later than 45 days after sampling. Samples shall be taken from on-site monitoring wells and surface water sampling points as shown and labeled on the referenced site plan and other sampling points listed on the following table in accordance with the schedule outlined herein:

Monitoring Locations	Sampling Frequency	Parameters
Management Wells: MW-1S, MW-3, MW-ES, MW-EI, MW-ED, MW-G, MW-H, SW-3	April & November each year	Specific Conductance @ 25° C, pH, Chloride, Nitrate, TKN, Iron, Manganese, Static Water Elevation
same as above	November each year	NHDES Petroleum & Hazardous Waste Remediation Full List of Analytes for Volatile Organics, and EPA Method 314.0 for perchlorate
same as above	November 2003 & 2005	Drinking Water Metals
MW-2, MW-F	April & November each year	Specific Conductance @ 25° C, pH, Static Water Elevation

(continued)

Three Residential Drinking Water Wells: **Coll;** Tax Lot #254-24 (**two** wells on property) **Coll;** Tax Lot #254-25 (20 Old Sharon Road) • Pre-filtration system • Post filtration system	November each year	Specific Conductance @ 25° C, pH, Chloride, Nitrate, TKN, Iron, Manganese, NHDES Petroleum & Hazardous Waste Remediation Full List of Analytes for Volatile Organics, and EPA Method 314.0 for perchlorate

Samples shall be obtained using sampling procedures and protocol described in "Practical Guide for Ground-Water Sampling," USEPA current edition, and "RCRA Ground-Water Monitoring Enforcement Guidance," USEPA current edition. Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency or the New Hampshire Department of Environmental Services. All overburden groundwater samples collected for metal analyses (iron, manganese, and Drinking Water Metals) shall be analyzed for dissolved metals; and thus must be field filtered (with a 0.45-micron filter) and acidified after filtration in the field. Surface water samples and samples collected from bedrock or water supply wells shall be analyzed for total metals, and shall not be filtered. As referred to herein, the term "Drinking Water Metals" refers to arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.

Summaries of water quality shall be submitted annually to the Department's Waste Management Division, attention Groundwater Management Permits Coordinator, in the month of **January**, using a format acceptable to the Department. The Annual Report shall include a tabular summary of all monitoring results to date, an assessment of trends in the data, an evaluation of the performance of the remedial action plan, and any recommendations for modifications to the remedial action plan.

8. Issuance of this permit is based on the Groundwater Management Permit Application dated April 10, 2002 and the historical documents found in the Department file DES # 198402073. The Department may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted.

9. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or outside the Groundwater Management Zone boundary, the permittee shall notify the Department in writing. Within 60 days of discovery, the permittee shall submit a work scope for development of a revised remedial action plan, including a schedule of milestones, to the Department for approval. The Department shall approve the revised remedial action plan if compliance with Env-Wm 1403.08 has been demonstrated.

ADDITIONAL CONDITIONS FOR LANDFILLS

10. The permittee shall construct and maintain a capping system at the facility that meets the standards set forth in Env-Wm 2505.10.

SPECIAL CONDITION FOR THIS PERMIT

11. Recorded property within the Groundwater Management Zone shall include the lots as listed and described in the following table:

Tax Map/ Lot #	Property Address	Owner Name and Address	Deed Reference (Book/Page)
254/1	Town Municipal Landfill	Town of Jaffrey 23 Knight Street Jaffrey, NH 03452	Bk 706/ Pg 60

12. Groundwater Management Zone shall be Lot Number 1 of Tax Map 254 of the Town of Jaffrey until further investigation of off-site groundwater contamination is conducted. Subsequent to that effort, an updated Groundwater Management Zone shall be submitted to the Department.

13. The Town shall submit to the Department by June 15, 2003, a scope of work to investigate the offsite occurrence of 1,1-dichloroethene, trichloroethene, vinyl chloride and manganese and to address monitoring of the clay lined lagoons.

Carl W. Baxter, P.E.
Administrator, Hazardous Waste Remediation Bureau
Waste Management Division

Under RSA 21-0:14 and 21-0:9-V, any person aggrieved by any terms or conditions of this permit may appeal to the Waste Management Council in accordance with RSA 541-A and N.H. Admin. Rules, Env-WMC 200. Such appeal must be made to the Council within 30 days and must be addressed to the Chairman, Waste Management Council, 6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

PETROLEUM & HAZARDOUS WASTE REMEDIATION
FULL LIST OF ANALYTES AND EXPECTED QUANTITATION LIMITS
FOR
VOLATILE ORGANICS

		Quantitation Limit				Quantitation Limit		
		Ground-water	Drinking Water	Soil		Ground-water	Drinking Water	Soil
Compound	CAS#	ug/L	ug/L	ug/Kg	Compound	ug/L	Ug/L	ug/Kg
1,1,1,2-Tetrachloroethane		5	0.5	100	Chlorobenzene	5	0.5	100
1,1,1-Trichloroethane		5	0.5	100	Chloroethane	5	0.5	100
1,1,2,2-Tetrachloroethane		2	0.5	100	Chloroform	5	0.5	100
1,1,2-Trichloroethane		5	0.5	100	Chloromethane	3	1	100
1,1-Dichloroethane		5	0.5	100	cis-1,2-Dichloroethene	5	0.5	100
1,1-Dichloroethene		5	0.5	100	cis-1,3-Dichloropropene	5	0.5	100
1,1-Dichloropropene		5	0.5	100	Dibromochloromethane	5	0.5	100
1,2,3-Trichlorobenzene		5	0.5	100	Dibromomethane	5	0.5	100
1,2,3-Trichloropropane		5	0.5	100	Dichlorodifluoromethane	5	0.5	100
1,2,4-Trichlorobenzene		5	0.5	100	Diethyl ether	5	0.5	100
1,2,4-Trimethylbenzene		5	0.5	100	Diisopropyl ether (DIPE)	5	0.5	100
1,2-Dibromo-3-chloropropane		5	0.5	100	Ethylbenzene	5	0.5	100
1,2-Dibromoethane		5	0.5	100	Ethyl-t-butyl ether (ETBE)	5	0.5	100
1,2-Dichlorobenzene		5	0.5	100	Hexachlorobutadiene	2	0.5	100
1,2-Dichloroethane		5	0.5	100	Isopropylbenzene	5	0.5	100
1,2-Dichloropropane		5	0.5	100	m/p-Xylenes	5	0.5	100
1,3,5-Trimethylbenzene		5	0.5	100	Methylene chloride	5	0.5	100
1,3-Dichlorobenzene		5	0.5	100	Methyl-t-butylether(MTBE)	5	0.5	100
1,3-Dichloropropane		5	0.5	100	Naphthalene	5	0.5	100
1,4-Dichlorobenzene		5	0.5	100	n-Butylbenzene	5	0.5	100
2,2-Dichloropropane		5	0.5	100	n-Propylbenzene	5	0.5	100
2-Butanone(MEK)		10	10	500	o-Xylene	5	0.5	100
2-Chlorotoluene		5	0.5	100	p-Isopropyltoluene	5	0.5	100
2-Hexanone		10	0.5	100	sec-Butylbenzene	5	0.5	100
2-Methoxy-2-methylbutane (TAME)		5	0.5	100	Styrene	5	0.5	100
4-Chlorotoluene		5	0.5	100	tert-Butanol (TBA)	50	50	2500
4-Methyl-2-pentanone(MIBK)		10	10	500	tert-Butylbenzene	5	0.5	100
Acetone		10	10	500	Tetrachloroethene	5	0.5	100
Benzene		5	0.5	100	Tetrahydrofuran(THF)	10	10	500
Bromobenzene		5	0.5	100	Toluene	5	0.5	100
Bromochloromethane		5	0.5	100	trans-1,2-Dichloroethene	5	0.5	100
Bromodichloromethane		2	0.5	100	trans-1,3-Dichloropropene	5	0.5	100
Bromoform		5	0.5	100	Trichloroethene	5	0.5	100
Bromomethane		5	0.5	100	Trichlorofluoromethane	5	0.5	100
Carbon disulfide		5	0.5	100	Vinyl chloride	2	0.5	100
Carbon tetrachloride		5	0.5	100				

Notes:

1) Samples shall be analyzed by an approved EPA analytical method.
2) The initial samples for a new site or a new discharge must be analyzed by an approved EPA method that uses mass spectrometry for positively identifying the compounds.
3) For initial samples that exhibit non-listed analytes, the top ten tentatively identified compounds (TICs) must be qualified and, if possible, quantitated. If there are no non-listed analytes present in the chromatogram, this should be noted in the report narrative. Reporting of TICs is not required for residential and commercial On-Premise-Use Heating Oil Facilities sites.
4) For the purposes of site closure, the analytical method shall be capable of detecting concentrations at or below the quantitation limits for all compounds on the list.
5) Detecting concentrations at or below the quantitation limit is not required for all listed compounds when analyzing for highly contaminated groundwater or soil samples (collected in the vicinity of the contaminant source area). However, the analytical method shall be capable of reporting the actual concentrations of all critical compounds (compounds used to make regulatory decisions). Other compounds may be reported as less than a concentration, provided those compounds are not used in the regulatory decision-making process. A second analysis of a sample (dilutions series analysis to obtain high concentrations of some compounds and low concentrations of other compounds) are only required when specifically requested by a DES project manager. The Petroleum Cleanup Funds will only reimburse multiple analyses of a single sample when specifically requested by a DES project manager and reimbursement will be in accordance with the prevailing market rates document published by DES.

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
PETROLEUM REMEDIATION
SHORT LIST OF ANALYTES
FOR
VOLATILE ORGANICS

		Quantitation Limit	
		Groundwater	Soil
Compound	CAS #	ug/L	ug/Kg
1,2,4-Trimethylbenzene	95-63-6	5	100
1,3,5-Trimethylbenzene	108-67-8	5	100
2-Methoxy-2-methylbutane (TAME)	994-05-8	5	100
Benzene	71-43-2	5	100
Diisopropyl ether (DIPE)	108-20-3	5	100
Ethylbenzene	100-41-4	5	100
Ethyl-t-butyl ether (ETBE)	637-92-3	5	100
Isopropylbenzene	98-82-8	5	100
m/p-Xylenes	1330-20-7	5	100
Methyl-t-butylether(MTBE)	1634-04-4	5	100
Naphthalene	91-20-3	5	100
n-Butylbenzene	104-51-8	5	100
n-Propylbenzene	103-65-1	5	100
o-Xylene	95-47-6	5	100
p-Isopropyltoluene	99-87-6	5	100
sec-Butylbenzene	135-98-8	5	100
tert-Butanol (TBA)	75-65-0	20	2500
tert-Butylbenzene	98-06-6	5	100
Toluene	108-88-3	5	100

Notes:

1) Samples shall be analyzed by an approved EPA analytical method. The method shall be capable of detecting concentrations at or below the quantitation limits, except as noted in 3 below.
2) The Short List may be used after DES Project Manager approval. The Short List cannot be used in the following cases:
   i. initial samples for a new site or a new discharge at an existing site,
   ii. samples collected for the one of the two final rounds necessary to document site closure, and
   iii. samples collected from drinking water supplies.

   The Full List of Analytes shall be reported for the above cases.
3) Detecting concentrations at or below the quantitation limit is not required for all the listed compounds, when analyzing for highly contaminated soil or groundwater samples (collected in the vicinity of the contaminant source area). However the analytical method shall be capable of reporting actual concentrations for all critical compounds (compounds used to make regulatory decisions). Other compounds may be reported as less than a concentration, provided those compounds are not used in the regulatory decision-making process. A second analysis of a sample (dilutions series analysis to obtain high concentrations of some compounds and low concentrations of other compounds) is only required when specifically requested by a DES Project Manager. The Petroleum Cleanup Funds will only reimburse multiple analyses of a single sample when specifically requested by a DES Project Manager and reimbursement will be in accordance with the prevailing market rates document published by DES.
4) For the purposes of site closure, the analytical method shall be capable of detecting concentrations at or below the quantitation limits for all compounds on the list.

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
HAZARDOUS WASTE REMEDIATION
SHORT LIST OF ANALYTES
FOR
VOLATILE ORGANICS

		Quantitation Limit	
		Groundwater	Soil
Compound	CAS#	ug/L	ug/Kg
1,1,1,2-Tetrachloroethane	630-20-6	2	100
1,1,1-Trichloroethane	71-55-6	5	100
1,1,2,2-Tetrachloroethane	79-34-5	5	100
1,1,2-Trichloroethane	79-00-5	5	100
1,1-Dichloroethane	75-34-3	5	100
1,1-Dichloroethene	75-35-4	5	100
1,3,5-Trichlorobenzene	108-70-3	5	100
1,2,4-Trichlorobenzene	120-82-1	5	100
1,2-Dichlorobenzene (o-DCB)	95-50-1	5	100
1,3-Dichlorobenzene (m-DCB)	541-73-1	5	100
1,4-Dichlorobenzene (p-DCB)	106-46-7	5	100
1,2-Dichloroethane	107-06-2	5	100
Chloroethane	75-00-3	5	100
Chloromethane	74-87-3	5	100
cis-1,2-Dichloroethene	156-59-2	5	100
Methylene chloride	75-09-02	5	100
Monochlorobenzene (Chlorobenzene)	108-90-7	5	100
Tetrachloroethene	127-18-4	5	100
trans-1,2-Dichloroethene	156-60-5	5	100
Trichloroethene	79-01-06	5	100
Vinyl chloride	75-01-4	2	100

Notes:

1) Samples shall be analyzed by an approved EPA analytical method. The method shall be capable of detecting concentrations at or below the quantitation limits, except as noted in 3 below.
2) The Short List may be used after DES Project Manager approval. The Short List cannot be used in the following cases:
   i. initial samples for a new site or a new discharge at an existing site,
   ii. samples collected for one of the two final rounds necessary to document site closure, and
   iii. samples collected from drinking water supplies.

   The Full List of Analytes shall be reported for the above cases.
3) Detecting concentrations at or below the quantitation limit is not required for all the listed compounds, when analyzing for highly contaminated soil or groundwater samples (collected in the vicinity of the contaminant source area). However the analytical method shall be capable of reporting actual concentrations for all critical compounds (compounds used to make regulatory decisions). Other compounds may be reported as less than a concentration, provided those compounds are not used in the regulatory decision-making process. A second analysis of a sample (dilutions series analysis to obtain high concentrations of some compounds and low concentrations of other compounds) is only required when specifically requested by a DES Project Manager. The Petroleum Cleanup Funds will only reimburse multiple analyses of a single sample when specifically requested by a DES Project Manager and reimbursement will be in accordance with the prevailing market rates document published by DES.
4) For the purposes of site closure, the analytical method shall be capable of detecting concentrations at or below the quantitation limits for all compounds on the list.